BroilerNet Factsheet AH1-C3-2

Replacing Coccidiostats with Vaccination

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Intro to Good Practice

Coccidiosis has been a widespread problem in chickens for many decades, including broilers. In addition to clinical outbreaks, the subclinical form of coccidiosis causes damage in the form of growth retardation, poorer feed conversion, and inferior financial results. This damage has been managed for decades by adding coccidiostats to the feed.

However, the use of coccidiostats has long been a subject of debate. Coccidiostats not only increase costs but can also lead to resistance in chickens and potentially in humans to these agents, as well as to other agents including antibiotics. Nowadays, various vaccines against coccidiosis are available on the market, which can be administered either in ovo, at the hatchery, or in the barn.



Figure 1: Vaccinating through spraying

Background & challenges

Within the EU, discussions have been ongoing for many years about phasing out or even banning the use of coccidiostats. The reason is that these substances may contribute to the development of antibiotic resistance (in animals and humans alike). Due to resistance in chickens, occasional breakthroughs of coccidiosis infections occur, and subclinical infections may result in poorer technical results (growth retardation and inferior feed conversion). Therefore, coccidiostat schedules are regularly switched (so-called shuttle programs).



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Additional information

Vaccines for administration through drinking water against coccidiosis have existed for many years. Later, vaccines were developed that are sprayed onto chicks (with dye); the chicks then ingest the vaccine through pecking behavior. Recently, vaccines that can be administered in ovo have also been introduced. With vaccines, the coccidia present in the barn are replaced by vaccine coccidia. It takes several production rounds for the vaccine to work optimally, but afterwards, technical results are often better, and clinical outbreaks are rare.

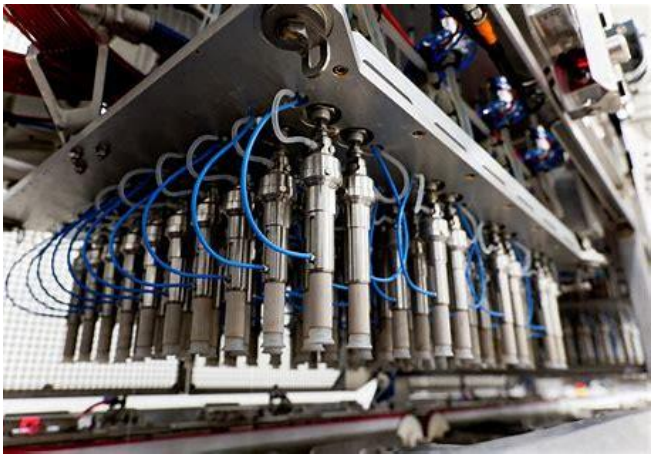


Figure 2: Equipment for in-ovo vaccination

Costs

With vaccination, coccidiostats cannot be used (as they would otherwise destroy the vaccine coccidia). The costs of the vaccine are largely offset by savings on coccidiostats.
When using coccidiostats, there might be a growth promoting effect, as these also can have an antimicrobial effect on other infections.



Benefits

- Improved sector image, because no coccidiostats are added to the diets
- Better technical results
- More uniform flocks
- No resistance to coccidiostats being developed

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